

**Before the  
FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554**

Federal Communications Commission

FCC 13-39

In the Matter of	)
	)
Reassessment of Federal Communications	) ET Docket No. 13-84
Commission Radiofrequency Exposure Limits	)
And Policies	)
	)
Proposed Changes in the Commission's Rules	) ET Docket No. 03-137
Regarding Human Exposure to Radiofrequency	)
Electromagnetic Fields	)

**REPLY COMMENTS BY MOBILE MANUFACTURERS FORUM**

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## I - INTRODUCTION AND SUMMARY

The Mobile Manufacturers Forum (MMF) submits these reply comments in response to the above-referenced proceedings.

The MMF is an international association of telecommunications equipment manufacturers with an interest in mobile or wireless communications, including the manufacturers of mobile handsets and devices as well as the manufacturers of the network infrastructure. Established to support research into the health and safety of radio frequency electromagnetic fields, the MMF has worked with national and international health agencies to support identified research. Further information on the MMF can be found on our website at [www.mmfai.org](http://www.mmfai.org).

In our initial comments<sup>1</sup> the MMF argued that the rationale for continuing to maintain two separate standards in a world that has largely harmonized SAR and MPE limits is increasingly difficult to justify and, on the contrary, that there are strong policy, practical and scientific grounds to justify an alignment of the FCC standards with those adopted by IEEE C95.1-2005 (which for the present purposes are essentially the same as those recommended by the International Commission on Non-Ionizing Radiation Protection (ICNIRP)). This is a position that has been supported by many parties to this proceeding.<sup>2</sup> For those parties that do oppose such an alignment, the reasoning and support they offered in their comments<sup>3</sup> has been found to be wanting and contradicted by credible expert reviews, more recent

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<sup>1</sup> See Comments of the Mobile Manufacturers Forum, ET Docket Nos. 13-84, 03-137, at 15-17 (filed Sept. 3, 2013) (“MMF Comments”)

<sup>2</sup> See for example Comments of the Consumer Electronics Association, ET Docket Nos. 13-84, 03-137, at 5-6 (filed Sept. 3, 2013) (“CEA Comments”); Comments of the International Committee on Electromagnetic Safety (ICES) of the Institute of Electrical and Electronics Engineers, Inc. (IEEE), ET Docket Nos. 13-84, 03-137, at 1-2 (filed Sept. 3, 2013) (“ICES Comments”); Comments of Motorola Solutions, Inc., ET Docket Nos. 13-84, 03-137, at 10-13 (filed Sept. 3, 2013) (“Motorola Solutions Comments”); Comments of Nokia Corporation, ET Docket Nos. 13-84, 03-137, at 3-5 (filed Sept. 3, 2013) (“Nokia Comments”); Comments of the Telecommunications Industry Association, ET Docket Nos. 13-84, 03-137, at 3 (filed Sept. 3, 2013) (“TIA Comments”); Comments of Wi-Fi Alliance, ET Docket Nos. 13-84, 03-137, at 4-7 (filed Sept. 3, 2013) (“Wi-Fi Alliance Comments”)

<sup>3</sup> See for example Comments by Jonathan D. Libber for Maryland Smart Meter Awareness ET Docket Nos. 103-137, at 1 (filed Feb. 6, 2013) (“MSMA Comments”); Comments by B. Blake Levitt ET Docket Nos. 03-137 at 3 (filed Feb. 7, 2013) (“B.B Levitt Comments”); Comments by Om P. Gandhi ET Docket Nos. 13-84, 03-137, at 2 (filed June 2, 2013) (“Om Gandhi Comments”); Reply Comments by Center for Electrosmog Prevention ET Docket No.03-137 and WT Docket No. 1-357, at 4 (filed March 4, 2013) (“CEP Comments”)

studies and the overall weight of scientific opinion. Thus we believe that there are indeed strong grounds for the FCC to harmonize their current standards with IEEE C95.1-2005.

## **A – SCIENTIFIC, POLICY, AND PRACTICAL RATIONAL FOR HARMONIZATION OF FCC'S RF STANDARDS**

The MMF has indicated in our initial comments<sup>4</sup> that we believe that there are strong scientific, policy and practical grounds to justify an alignment of the FCC's standards with the IEEE C95.1- 2005 standard. Foremost, we agree with the comments filed by International Committee on Electromagnetic Safety ('ICES') of the Institute of Electrical and Electronics Engineers Inc. ('IEEE') where they state that IEEE C95.1- 2005 "is the most up-to-date international exposure standard and incorporates many science-based improvements over IEEE C95.1-1991 and the ICNIRP guidelines."<sup>5</sup>

### **1– SCIENTIFIC CONSENSUS OF OPINION SUPPORTS HARMONIZATION**

As the MMF outlined in our initial comments, there have been several recent statements by national and international health agencies and expert bodies that provide a solid basis for the adoption of international standards.<sup>6</sup> Essentially those statements demonstrate that health agencies and expert bodies do not consider that there are any established health effects below the levels recommended by ICNIRP and IEEE C95.1-2005.

Several parties in this proceeding also highlighted that the World Health Organization (WHO) also recommends national authorities to adopt either the ICNIRP guidelines or the IEEE C95.1-2005 standard. Such a recommendation from

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<sup>4</sup> See MMF Comments at 18-19

<sup>5</sup> See ICES Comments at 2

<sup>6</sup> See MMF Comments at 18-19

the WHO highlights the degree to which there is consensus in scientific opinion on the appropriateness of the international standards for the protection of all members of the community. As commenting parties have noted<sup>7</sup>, these standards are conservative in nature and provide a high level of protection for everyone, including children, through the incorporation of a substantial safety margin.

Such is the consensus of scientific opinion that ICES stated in their comments: “(t)oday, there are no international standards or guidelines that support a partial-body exposure basic restriction of 1.6 W/kg, averaged over 1 g of tissue, adopted by FCC in 1996.”<sup>8</sup>

#### **A – ARGUMENTS AGAINST HARMONIZATION ARE UNSUPPORTED**

While the consensus of scientific opinion clearly favors harmonization, some commenting parties to this proceeding attempted to argue against harmonization, although their arguments ultimately are unsupported.

For example the Environmental Working Group claimed that children are more vulnerable to RF emissions<sup>9</sup> and that limits on the specific absorption rates (SAR) should be different for adults and children.<sup>10</sup> However, as the MMF already highlighted in our initial comments<sup>11</sup> a number of independent reviews of all the available science by international health authorities and governments have carefully considered these concerns and found no evidence of any additional risk to children from mobile phone technologies. As we also mentioned<sup>12</sup>, the Health Council of the Netherlands also specifically addressed the question of whether or not there needed to be different exposure limits for children or other vulnerable groups in the community and concluded:

*The answer to this question is: no, because the potential additional sensitivity of*

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<sup>7</sup> See for example CEA Comments at 12, Nokia Comments at 9, TIA Comments at 7,9 and 21,

<sup>8</sup> See ICES Comment at 4

<sup>9</sup> Environmental Working Group ET Docket No. 13-84 and 03-137 at 3 (filed Sept. 3, 2013)

<sup>10</sup> See Environmental Working Group Comments at 5-6

<sup>11</sup> See MMF Comments at 20-25

<sup>12</sup> See MMF Comments at 24-25

*children and other vulnerable groups was explicitly accounted for in setting the exposure limits.*

*It is one of the reasons why the exposure limits for the general population include an ample uncertainty margin of a factor of 50. Based on the data presented in this report, the Committee sees no reason to recommend different exposure limits for children than for adults.<sup>13</sup>*

Likewise, the EM Radiation Policy Institute (EMRPI) urged RF safety limits be based on harms demonstrated in the 2007 BioInitiative Report<sup>14</sup>, despite the fact that this self-published report has been heavily criticized as being selective, not presenting a balanced analysis and for making claims which lacked a scientific basis. The Health Council of the Netherlands reviewed the report in 2008<sup>15</sup> and concluded:

*In view of the way the BioInitiative report was compiled, the selective use of scientific data and the other shortcomings mentioned above, the Committee concludes that the BioInitiative report is not an objective and balanced reflection of the current state of scientific knowledge.*

The IEEE Committee on Man and Radiation also published a paper in 2009<sup>16</sup> and concluded:

*the weight of scientific evidence in the RF bioeffects literature does not support the safety limits recommended by the BioInitiative group. For this reason, COMAR recommends that public health officials continue to base their policies on RF safety limits recommended by established and sanctioned international organizations such as the Institute of Electrical and Electronics Engineers International Committee on Electromagnetic Safety and the International Commission on Non-Ionizing Radiation Protection, which is formally related to the World Health Organization.*

As we noted in our original comments<sup>17</sup>, the recommendations of the BioInitiative authors in their 2012 paper of a limit of just 0.0003 µW/cm<sup>2</sup> would result in typical compliance zones around base station sites that would extend about a hundred meters around pico sites, through to several hundred meters for micro base stations and through to several kilometers for a macro base station. The MMF submits that such recommendations are both scientifically and practically flawed.

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<sup>13</sup> Health Council of the Netherlands, 2011, *Influence of radiofrequency telecommunication signals on children's brains*. The Hague: Health Council of the Netherlands, 2011; publication no. 2011/20E. ISBN 978-90-5549-859-8

<sup>14</sup> Comments of the EM Radiation Policy Institute ET Docket No. 13-84 and 03-137 at 3 (filed Aug. 30, 2013)

<sup>15</sup> [http://www.gr.nl/sites/default/files/200817E\\_0.pdf](http://www.gr.nl/sites/default/files/200817E_0.pdf)

<sup>16</sup> COMAR Technical Information Statement: Expert reviews on potential health effects of radiofrequency electromagnetic fields and comments on the BioInitiative Report. *Health Phys.* 97(4):348 –356, 2009.

<sup>17</sup> See MMF Comments at 56

In our original comments<sup>18</sup> we also dealt with EMRPI's assertions that RF is damaging the ecosystem<sup>19</sup>, claims which are at odds with comprehensive reviews of the subject and statements by the World Health Organization.<sup>20</sup>

Several submissions claimed that the existing FCC standards do not take account of the studies showing biological harm at levels below what the standards allow.<sup>21</sup> However, as we noted in our original comments<sup>22</sup> ICES has extensively reviewed the biological effects ascribed to exposure to low-level fields, i.e., at or below the corresponding basic restrictions in the frequency range 3 kHz to 300 GHz and they have stated:

*Despite more than 50 years of RF research, low-level biological effects have not been established. No theoretical mechanism has been established that supports the existence of any effect characterized by trivial heating other than microwave heating. Moreover, the relevance of reported low-level effects to health remains speculative and such effects are not useful for standard setting.<sup>23</sup>*

Other submissions tried to argue that the 'precautionary principle' should be applied to lower the FCC standards<sup>24</sup>, however these comments failed to point out, as we mentioned in our original comments<sup>25</sup> that such calls have often resulted in the adoption of arbitrary reductions in the exposure limits at a national level and resulted in a number of unintended consequences particularly for network infrastructure such as:

- Increased compliance zones around existing base station sites which can require output power to be reduced creating gaps in network coverage that

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<sup>18</sup> See MMF Comments at 101

<sup>19</sup> See EMRPI Comments at 12

<sup>20</sup> See MMF Comments at 101, particularly the WHO International EMF Project, Information Sheet, February 2005 *Effects of EMF on the Environment* [http://www.who.int/peh-emf/publications/facts/envimpactemf\\_infosheet.pdf](http://www.who.int/peh-emf/publications/facts/envimpactemf_infosheet.pdf)

<sup>21</sup> See EMRPI Comments at 4, Consumers for Safe Cell Phones (CSCP) ET Docket No. 13-84 and 03-137 at 2-3 (Filed Sep. 3, 2013), Cindy Sage and David O. Carpenter ET Docket No. 13-84 and 03-137 at 2-3 (filed Aug. 27, 2013), B. Blake Levitt and Henry C. Lai ET Docket No. 13-84 and 03-137 at 5 (filed Aug. 26, 2013) ("Levitt Lai Comments"), Ellen K. Marks for California Brain Tumor Association ET Docket No. 03-137 at 1 (filed Feb. 2, 2013)

<sup>22</sup> See MMF Comments at 95

<sup>23</sup> IEEE C95.1-2005 - Annex C.1.2, page 82

<sup>24</sup> See Olle Johansson Comments ET Docket No. 13-84 at 1 (filed Feb. 6, 2013) and Dariusz Leszczynski Comments ET Docket No. 13-84 and 03-137 at 2 (filed Apr. 12, 2013)

<sup>25</sup> See MMF Comments at 51-67

- result in the need for more sites than otherwise required;
- Adverse impacts for emergency services as well as consumers who are relying on their mobile phone to contact emergency services;
  - Arbitrary reductions can be interpreted by the public as evidence that there is something to be concerned about regarding the safety of base stations;
  - Lower limit values create the perception that base station emissions are now much higher when viewed as a percentage of the relevant limit compared with the international standard;
  - The adoption of arbitrary values lack any scientific justification, and as such, resisting calls for further reductions becomes a matter of political will rather than of scientific merit;
  - Arbitrary reductions to the international standards do not provide any measurable improvement with regards to the effects of EMF exposure, as both ICNIRP guidelines and the IEEE standard are already well below the threshold level that can cause adverse effects.
  - Consistent international experience is that ‘precautionary measures’ can increase the level of concern within the public rather than reduce it.

The issues that we raised above in relation to the increase in compliance areas and the increased level of concern that are often seen in relation to the adoption of such arbitrary measures has been recently confirmed in an ITU-T submission by India.<sup>26</sup> In that submission they outlined the various problems that they have experienced as a result of adopting lower limits out of “abundant caution”<sup>27</sup> in 2012. These include compliance distances around base stations that have increased more than 200%<sup>28</sup> making it difficult for operators to ensure compliance in publicly accessible areas

<sup>26</sup> ITU-T: T13-SG05-C-0097: *Issues in implementation of new Electro Magnetic Field Emission norms with 1/10<sup>th</sup> of ICNIRP norms*

<sup>27</sup> Id. 1.6

<sup>28</sup> Id. 2.1.1

without reducing power and therefore cell coverage<sup>29</sup> – causing degraded quality of service issues for consumers<sup>30</sup>. Above all, India states that “the reduced limits have also increased concern among the public about EMF radiation.”<sup>31</sup>

Likewise, as we argued in our original comments<sup>32</sup>, such calls for the application of the precautionary principle are at odds with the approach of the European Commission which has the principle enshrined in the Treaty on the European Union (also known as the Maastricht Treaty). In response to misapplications of the precautionary principle, in 2000 the European Commission produced a *Communication on the Precautionary Principle* that made it clear that a proper risk assessment was the basis of using the principle and safety measures such as exposure standards should not be arbitrary. The report concluded:

*The Commission also considers that every decision must be preceded by an examination of all the available scientific data and, if possible, a risk evaluation that is as objective and comprehensive as possible. A decision to invoke the precautionary principle does not mean that the measures will be adopted on an arbitrary or discriminatory basis.*

And, it is also useful to recall as we pointed out in our original comments<sup>33</sup>, that the European Commission itself considers the adoption of the EU Council Recommendation (i.e., ICNIRP guidelines) as being an exercise in the application of the precautionary principle.

Other commenting parties suggested that existing standards were not appropriate as there is an increased incidence of specific tumors in the population resulting from RF exposure.<sup>34</sup> However this has been contradicted by several reviews of brain cancer incidence data undertaken in different countries. As the MMF highlighted in our original comments<sup>35</sup>, the 2012 Norwegian Institute for Public Health report<sup>36</sup>

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<sup>29</sup> Id. 2.1.2

<sup>30</sup> Id. 2.1.3

<sup>31</sup> Id. 3

<sup>32</sup> See MMF Comments at 60

<sup>33</sup> See MMF Comments at 61

<sup>34</sup> See Joel M. Moskowitz Comments ET Docket No. 13-84 and 03-137 at 2 (filed Sept. 3, 2013)

<sup>35</sup> See MMF Comments at 77

stated:

*It is reasonable to assume that the gradually increasing and widespread use of mobile phones would have led to an increased cancer incidence over time, if use was carcinogenic. ...The results of the incidence studies show no evidence of increasing incidence of these cancers over time.*

This is also consistent with the findings from a 2012 examination of United States cancer incidence data by investigators at the National Cancer Institute (NCI). In that study they found the trend for glioma – the most common type of brain cancer – has remained roughly constant during the period cell phone use grew rapidly.

According to the NCI's press release associated with the publication of the study:

*"The researchers found that while cell phone use increased substantially over the period 1992 to 2008 (from nearly zero to almost 100 per cent of the population), the US trends in glioma incidence did not mirror that increase,"* <sup>37</sup>

In the study itself published in the *British Medical Journal*, the researchers said:

*"If phone use was associated with glioma risk, we expected glioma incidence rates to be higher than those observed, even with a latency period of 10 years and low relative risks,"* <sup>38</sup>

The NCI results are consistent with a study undertaken of incidence trends in the Nordic countries, which were the first to launch cell phone networks and where usage has been the longest. In that paper, which covered the period 1979-2008, the researchers found:

*"Incidence rates were generally stable over the whole period, and increased gradually among older persons. A slight decrease in incidence rates was observed after the late 1980s among the younger men overall and in Denmark and Sweden, but not in Finland and Norway,"* <sup>39</sup>

Therefore the claim made by some commentators that incidence trends of brain

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<sup>36</sup> <http://www.fhi.no/>

<sup>37</sup> <http://www.cancer.gov/newscenter/newsfromnci/2012/GliomaCellPhoneUse>

<sup>38</sup> Little M P et al., Mobile phone use and glioma risk: comparison of epidemiological study results with incidence trends in the United States, *BMJ* 2012; 344

<sup>39</sup> Deltour I et al., Mobile phone use and incidence of glioma in the Nordic countries 1979-2008: consistency check, *Epidemiology*. 2012 Mar;23(2):301-7

cancers are increasing is simply not supported by the published studies<sup>40</sup> or by the expert reviews of the literature.

Several other commenting parties<sup>41</sup> objected to a change in the standards citing studies undertaken near or around base stations that claimed links to cancer.

However, the international consensus of expert bodies and health authorities such as the World Health Organization (WHO) is that there is no convincing scientific evidence of health effects from living or working near a mobile phone base station.

For example, the current WHO fact sheet on base stations and wireless networks<sup>42</sup> says:

*"Considering the very low exposure levels and research results collected to date, there is no convincing scientific evidence that the weak RF signals from base stations and wireless networks cause adverse health effects.*

*Recent surveys have indicated that RF exposures from base stations and wireless technologies in publicly accessible areas (including schools and hospitals) are normally thousands of times below international standards.*

*From all evidence accumulated so far, no adverse short- or long-term health effects have been shown to occur from the RF signals produced by base stations."*

It is also interesting to note that several of the studies specifically relied upon<sup>43</sup> such as two studies by Eger H. et al.<sup>44,45</sup> were "excluded" from the systematic analysis conducted by the World Health Organization<sup>46</sup> in 2010 on this issue, because they did not meet the standard quality criteria. Other studies such as those undertaken by Gerd Oberfeld<sup>47</sup> have also been controversial.<sup>48</sup>

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<sup>40</sup> See also de Vocht F. et al., Time trends (1998–2007) in brain cancer incidence rates in relation to mobile phone use in England, *Bioelectromagnetics* 32(5) 334-339 July 2011 and Deltour I et al, Time Trends in Brain Tumor Incidence Rates in Denmark, Finland, Norway, and Sweden, 1974–2003, *J Natl Cancer Inst* (2009) 101 (24): 1721-1724.

<sup>41</sup> See Andrew Goldsworthy Comments ET Docket No. 13-84 at 8 (filed Feb. 4, 2013), Levitt Lai Comments at 28-29, Magda Havas Comments ET Docket No. 13-84 and 03-137 at 4 (filed Feb. 4, 2013), and EMRPI Comments at 13

<sup>42</sup> <http://www.who.int/mediacentre/factsheets/fs304/en/index.html>

<sup>43</sup> See Magda Havas Comments at 4,

<sup>44</sup> Eger H, Hagen KU, Lucas B, Vogel P, Voit H. Einfluss der räumlichen Nähe von Mobilfunksendeanlagen auf die Krebsinzidenz [Influence of proximity to mobile phone base stations on cancer incidence]. *Umwelt - Medizin - Gesellschaft* 2004;17:326-32. German

<sup>45</sup> Eger H, Neppe F. Krebsinzidenz von Anwohnern im Umkreis einer Mobilfunksendeanlage in Westfalen; Interview-basierte Piloterhebung und Risikoschätzung [Cancer incidence among people living near a mobile phone base station in Westphalia: an interview-based pilot survey and risk estimation]. *Umwelt - Medizin - Gesellschaft* 2009;22:55-60. German.

<sup>46</sup> Martin Röösli, Patrizia Frei, Evelyn Mohler & Kerstin Hug, Systematic review on the health effects of exposure to radiofrequency electromagnetic fields from mobile phone base stations, *Bulletin of the World Health Organization* 2010;88:887-896F

<sup>47</sup> See Levitt and Lai Comments at 28

After completing its analysis, the WHO systematic review arrived at the following conclusion:

*"In conclusion, our review does not indicate an association between any health outcome and radiofrequency electromagnetic field exposure from MPBSs [mobile phone base stations] at levels typically encountered in people's everyday environment."*<sup>49</sup>

Taking this into account and the WHO's current advice, one again finds that the issues raised are unsupported, and should not be a barrier to a harmonization of the FCC standards.

## **2 – POLICY CONSIDERATIONS SUPPORT HARMONIZATION**

There are many policy grounds that speak in favor of harmonization of the current FCC standards, not least of which is that the current standards are more than 20 years old, with an underlying scientific rationale that has since been updated twice – a key point that was highlighted in our initial comments<sup>50</sup> and echoed by other commenting parties<sup>51</sup>.

Another key consideration, put forward by several parties is that the IEEE C95.1-2005 standard's recommendation of a 2W/kg over a 10gram average mass SAR limit, like ICNIRP's, has been widely adopted throughout the world, and is specifically recommended for national adoption by the World Health Organization.<sup>52</sup> As we highlighted in our own comments<sup>53</sup>, there are currently at least 115 countries, territories and regions that use the ICNIRP 2W/kg 10 gram averaging mass SAR limits as the basis of national safety standards for mobile devices and 105 that follow ICNIRP's recommendations for mobile phone networks. This is in stark contrast to only nine that follow the FCC for mobile networks and thirteen for mobile devices. Therefore the MMF's view, outlined in our initial comments<sup>54</sup>, is that the rationale for continuing to maintain two separate standards in a world that has

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<sup>48</sup> A 2008 study by Gerd Oberfeld had to be withdrawn when it was disclosed that no C-Net base station existed at the site claimed and therefore the claims of an increased cancer risk were without foundation.

<sup>49</sup> <http://www.who.int/bulletin/volumes/88/12/09-071852/en/>

<sup>50</sup> See MMF Comments at 4

<sup>51</sup> See Nokia Comments at 8, CEA Comments at 5, TIA Comments at 3

<sup>52</sup> See CTIA Comments at 32-33; ICES Comments at 6; and Nokia Comments at 8-9.

<sup>53</sup> See MMF Comments at 5

<sup>54</sup> See MMF Comments at 4

in the main adopted the international standards is increasing difficult to maintain.

Furthermore, the FCC has already recognized the IEEE as an expert consensus standards development body, as illustrated by the adoption in its current standards, based in part on C95.1-1991. Likewise as the ICES submission has demonstrated the development of C95.1-2005 was “developed by an international committee of more than 125 members representing 25 countries” including “members of the government, military, academia, industry, and general public”.<sup>55</sup> It was also development through an “open consensus process with oversight by the IEEE Standards Association under the principles of transparency and due process afforded to all”.<sup>56</sup> This voluntary consensus approach is also consistent with Congressional and Executive branch policies favoring reliance on standards developed through such bodies, which was also highlighted by several parties.<sup>57</sup> The ICES also noted in their comments that representatives of agencies of the Federal RF Interagency Working Group, e.g., FCC, FDA, NIOSH and OHSA, were also involved in the development of C95.1-2005.<sup>58</sup>

Considering the recognition that the FCC has given to the IEEE C95.1 standard in the past and that the revisions process involves an open consensus approach that has Congressional and Executive branch support, the MMF reaffirms our view that it should be appropriate and reasonable from a policy perspective to update the current FCC standards to harmonize with the C95.1-2005 Standard.

### **3 – HARMONIZATION BENEFITS CONSUMERS, INDUSTRY AND GOVERNMENT**

In our initial comments we outlined the significant benefits that would result from harmonization, particularly in terms of coverage and quality of service for consumers living in rural and regional areas.<sup>59</sup> In addition to these considerations,

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<sup>55</sup> See ICES Comments at 2

<sup>56</sup> See ICES Comments at 2

<sup>57</sup> See MMF Comments at 34-38, CEA Comments at 6; and TIA Comments at 7

<sup>58</sup> See ICES Comments footnote 8

<sup>59</sup> See MMF Comments 38-41,

we agree with the comments of the TIA whereby harmonizing limits would allow for a “build once, test once, sell everywhere” effect for manufacturers that would remove unnecessary trade barriers and improve the time-to-market for new products while reducing costs to consumers<sup>60</sup>, comments that were also echoed by Motorola Solutions<sup>61</sup> and the CTIA.<sup>62</sup> The CTIA comments also highlight the benefits of harmonization to government, the economy and to the community at large. The CTIA cites the Office of Management and Budget *Circular A-119 (Revised)*, which states that harmonization “can increase productivity and efficiency in Government and industry, expand opportunities for international trade, conserve resources, improve health and safety, and protect the environment.”<sup>63</sup> The MMF is certainly in agreement with these comments.

Harmonization of the FCC standards also will address the “disparities of EMF standards” that has “caused increasing public anxiety about EMF”.<sup>64</sup> The continuation of these disparities leads to the problems that we highlighted in our initial comments<sup>65</sup> and above in relation to the recent decision on regulations in India, which was held up as an example by other commenting parties<sup>66</sup> to oppose adoption of the science-based standards recommended by the WHO. On the contrary, as we detailed in our initial comments, harmonization increases consumer confidence and reduces community concerns.<sup>67</sup>

In view of the benefits to consumers, industry and government, the MMF reaffirms its recommendation that the current FCC standards be harmonized with IEEE C95.1-2005.

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<sup>60</sup> See TIA Comments at 6-7.

<sup>61</sup> See Motorola Solutions Comments at 13

<sup>62</sup> See CTIA Comments at 31-32.

<sup>63</sup> See CTIA Comments at 32

<sup>64</sup> See CTIA Comments at 32 quoting the WHO *Electromagnetic Fields – Standards & Guidelines*, available at <http://www.who.int/peh-emf/standards/en/>

<sup>65</sup> See MMF Comments at 43

<sup>66</sup> See MSMA Comments at 2

<sup>67</sup> See MMF Comments at 5

## **II - CONCLUSION**

As commenting parties to this proceeding have highlighted the degree to which there is a consensus of scientific opinion that the international standards provide an appropriate level of protection for all members of the community, including children, through the incorporation of large safety margins, and that there are strong policy justifications as well as practical benefits for consumers, industry and government that would arise from harmonization, there is a compelling case for harmonization of the FCC standards with IEEE C95.1-2005.

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